[JOINT COMMITTEE PRINT]

ANALYSIS OF SAFE-HARBOR LEASING

A REPORT

PREPARED BY THE STAFF OF THE

JOINT COMMITTEE ON TAXATION

FOR THE USE OF THE

COMMITTEE ON WAYS AND MEANS

U.S. HOUSE OF REPRESENTATIVES

AND THE

COMMITTEE ON FINANCE

UNITED STATES SENATE

JUNE 14, 1982

U.S. GOVERNMENT PRINTING OFFICE

94-163 O WASHINGTON : 1982 JCS-23-82

J862-23
S362-21
H782-20

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97th Congress, 2d Session

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INTRODUCTION

This pamphlet, prepared by the staff of the Joint Committee on Taxation, is an analysis of the safe-harbor leasing provisions enacted in the Economic Recovery Tax Act of 1981. Section I describes the prior law rules relating to lease transactions and the new safe-harbor rules. Section II contains numerical examples of lease transactions. Section III deals with public perceptions of safe-harbor leasing. Section IV considers the issue of how efficiently safe-harbor leasing transfers tax benefits. Section V presents data on which industries have used safe-harbor leasing. Section VI considers the use of leasing by quasi-public and public entities. Section VII discusses whether safe-harbor leasing equalizes investment incentives for different businesses. Section VIII describes the revenue impactof safe-harbor leasing. Section IX discusses several miscellaneous issues related to safe-harbor leasing. Section X outline the directions in which Congress might consider modifying safe-harbor leasing. Section XI is an appendix presenting the methodology used by the staff in section IV to measure the efficiency of safe-harbor leasing.

I. PRIOR AND PRESENT RULES FOR LEASE TRANSACTIONS

Overview

Prior to the enactment of the Economic Recovery Tax Act of 1981, the law contained rules to determine who owns an item of property for tax purposes when the property is subject to an agreement which the parties characterize as a lease. Such rules are important because the owner of the property is the person entitled to claim cost recovery (depreciation) deductions and investment tax credits. The prior rules attempted to distinguish between true leases, in which the lessor owned the property for tax purposes, and conditional sales or financing arrangements, in which the user of the property owned the property for tax purposes. These rules generally were not written in the Internal Revenue Code; instead they evolved over the years through a series of court cases and revenue rulings and revenue procedures issued by the Internal Revenue Service. Essentially, the law was that the economic substance of a transaction, not its form, determined who was the owner of property for tax purposes. Thus, if a transaction was, in substance, simply a financing arrangement, it would be treated that way for tax purposes regardless of how the parties chose to characterize it. Lease transactions could not be used solely for the purpose of transferring tax benefits; they had to have nontax economic substance. The specific prior law rules are discussed below.

The Economic Recovery Tax Act of 1981 (ERTA) provides a new set of rules which represent a major departure from prior law. These new provisions are intended to be a means of transferring tax benefits rather than a means of determining which person is in substance the owner of the property. Under the new rules, certain transactions involving tangible personal property are treated as leases for Federal income tax purposes regardless of their nontax economic substance. If a transaction meets these safe harbor requirements, the lessor in the agreement is treated as the property owner for Federal income tax purposes and is entitled to cost recovery deductions and investment credits. Under these rules, a person who has acquired and will use the property can, by entering into a nominal sale and safe-harbor leaseback, in effect, sell some of the tax benefits associated with the property to a corporation, while retaining all other economic benefits and burdens of ownership. The prior law rules remain in effect for transactions not qualifying for the safe harbor or when the safe harbor is not elected.

Business and Tax Reasons for Leasing Under Prior Law

Prior to ERTA, many businesses chose to obtain the use of equipment by leasing rather than owning the equipment. The reasons for leasing stem from tax, accounting, and a variety of business considerations.

Nontax business reasons.—An important reason for leasing equipment is that a person wants to use equipment for only a relatively small fraction of its useful life (e.g., renting a car for the weekend rather than buying it on Friday and selling it on Monday or leasing a computer for a year because the business is growing and a larger machine will be needed at that time). Also, property which requires a lot of service, such as computers, copying machines or railroad tank cars, is often leased in such a way that many of the direct costs of servicing the equipment are imposed on the lessor.

In addition, for some companies, the decision to lease stems from the cash flow and credit problems associated with the purchase of equipment. The company may not be able to afford the large downpayment sometimes required to finance the purchase of property. Also, the user may not be in a credit position to borrow at a reasonable interest rate the additional funds necessary to purchase the equipment or may face loan restrictions on additional borrowing. Leasing companies might be able to borrow at lower rates, and rental rates charged by the lessor for the use of the equipment often reflect this lower cost of borrowing, permitting lessees to obtain the use of equipment more cheaply than if they owned it themselves.

Other companies lease equipment because of State or Federal restrictions on the ownership of property, such as banking law restrictions on the ability of banks to own certain kinds of property. Some companies that do not want to bear the risk that high technology property (like a computer) will become obsolete in a short period of time choose to lease from companies specializing in that type of equipment.

Accounting considerations.—From an accounting viewpoint, a company may choose to lease because the obligation to pay rent often is not recorded as a liability of the lessee on its financial statements, whereas an obligation to repay a loan to purchase the property is recorded as a liability.[1]

Tax motives.—The tax motives for leasing equipment under prior law stemmed largely from the inability of the user of the equipment to utilize fully the tax benefits of ownership (i.e., depreciation and investment credit). Start-up companies, companies with economic losses, and companies that had other large tax deductions or credits often could not use all of these tax benefits to obtain a current reduction in tax liability because they lacked the taxable income and tax liability necessary to absorb the benefits. This was a particular problem with the investment tax credit, which until recently was generally limited to 50 percent of tax liability. (However, the Revenue Act of 1978 phased in an increase to 90 percent, and the 90-percent limit took effect in 1982.) Although tax losses generated by excess deductions and unused tax credits generally could be carried back 3 years and carried forward 7 years, any delay in realizing the benefits reduced their value in present value terms (a factor which has assumed greater significance as interest rates have risen). In addition, tax losses and credits expire at the end of the carryover period. (The carryover periods were extended to 15 years in the ERTA.) A company that anticipated that it would not be able to utilize fully the tax benefits of ownership could lease the property from a person who had a sufficient tax base to fully

[1] However, lease obligations are recorded in footnotes to financial statements.

utilize the benefits; that is, to obtain an immediate reduction in tax liability from the additional deductions or credits. The availability of the tax benefits to the lessor permitted the lessor to charge an amount of rent that was less than the cost to the lessee of purchasing the equipment. In effect, these lease arrangements permitted the lessee to obtain indirectly a portion of the tax benefits of ownership through lower rents. (See the numerical example of a leveraged lease in section II.)

Enactment and expansion of the investment credit and the acceleration of depreciation deductions in the 1960's and 1970's, along with low profitability in certain industries, increased the amount of leasing considerably because an increasing number of businesses were unable to utilize currently all the tax benefits provided. The user's desire to utilize another person's tax base to reduce its costs became a more significant motive in determining whether to lease or purchase property. Companies with a low tax liability that wanted to own property but for Federal tax purposes wanted lease treatment began to characterize as a lease a transaction that was in effect a financing arrangement. If the bank or other financing party were treated as the owner and the transaction were treated as a lease, the user could deduct its payments as rent and the financing party could claim depreciation and investment tax credits. However, if this transaction that was nominally structured as a lease were treated for tax purposes as a financing arrangement, and the user were treated as owner, the user could not deduct its payment as rent and the financing party could not claim depreciation or investment credits. Instead, the user would claim depreciation and investment credits, which it may not have been able to use.

As this type of lease financing evolved, persons other than banks became lessors. Often, this new type of lessor was a lease financing subsidiary of an affiliated group of operating companies with which it filed a consolidated return. The lease financing subsidiary used either its own funds or borrowed funds (often on a nonrecourse basis) to acquire the property. The operating companies generated sufficient taxable income to absorb the tax benefits generated by the lease financing subsidiary.

Prior Law Rules for Determining Validity of Leases

Underlying principles

In general, income taxes are paid on the basis of net income. In computing net (or taxable) income, deductions are allowed for ordinary and necessary expenditures incurred in a trade or business or otherwise incurred for the production of income. As a general rule, however, expenditures made to acquire or construct capital assets (assets with useful lives extending substantially beyond the close of the year) are not deductible in the year the expenditure is made. For assets that are subject to wear and tear, decay or decline in value from natural causes, exhaustion, or obsolescence, the cost represented by the decrease in utility and value of the asset—depreciation—may be deducted as a business expense in computing taxable income.

Depreciation deductions are generally allowed only for assets that are used for a business or other income-producing purpose. In general,

a business purpose does not exist if the taxpayer does not expect to make a profit from use of the asset independent of any tax benefit (depreciation, investment credits, etc.) allowed for business use of the property. This principle is part of the general principle of tax law that the tax law disregards transactions whose only purpose is tax avoidance.[2]

Depreciation deductions generally are allowed only to the person who is in substance the owner of the property; that is, the person who has an investment in the property and who suffer from any loss in its value. This is consistent with the theory that depreciation deductions represent the decline in value of property. In addition, rental deductions are not allowed for any person that has title or an equity interest in the property.

Application of underlying principles to leases

In general, the determination under pre-ERTA law of whether a transaction was a lease, in which the lessor of the property was the owner for tax purposes, or a financing arrangement or conditional sale, in which the user was considered the owner, required a case-by-case determination based on all facts and circumstances.

Although the determination of whether a transaction was a lease was inherently factual, a series of general principles was embodied in court cases, revenue rulings, and revenue procedures. These were based on the underlying principles described above; they are still used in determining the character of transactions that are not eligible for the new safe harbor rules or for which the safe harbor election is not made.

For a transaction to be a lease under prior law, the lessor had to hold title to the property under State law. However, State law ownership was not sufficient to guarantee tax ownership, and both the courts and the IRS imposed further rules in determining whether a transaction was a lease. These rules focused on the substance of the transaction rather than its form. The courts did not disregard the form of a transaction simply because tax considerations were a significant motive so long as the transaction also had a bona fide business purpose and the lessor retained sufficient burdens and benefits of ownership.[3]

To be entitled to depreciation deductions, the lessor must show that the property is being used for a business purpose. To have had a business purpose, the person claiming ownership (i.e., the lessor) had at least to be able reasonably to expect to derive a profit from the transaction independent of tax benefits.[4] This requirement precluded lease treatment for a transaction intended merely to reduce the user's costs by utilizing the lessor's tax base.

The fact that the lessor in a lease financing transaction could show a profit, however, did not automatically result in lease treatment under

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[2] For a discussion of the business purpose doctrine, see *Gregory* v. *Helvering*, 293 U.S. 465 (1935).

[3] *See Hilton* v. *Commissioner*, 74 T.C. 405)1980), *aff'd*, 671 F.2d. 316 (9th Cir. 1982) ; *Frank Lyon Co.* v. *United States*, 435 U.S. 561 (1978), *rev'g*, 536 F.2d 746 8th Cir. 1976) ; Rev. Rul. 55–540, 1955–2 C.B. 39 (and cases cited therein) ; *see generally, Gregory* v. *Helvering*, 293 U.S. 465 (1935).

[4] *See Hilton* v. *Commissioner*, 74 T.C. 305 (1980), *aff'd*, 671 F.2d. 316 (9th Cir. 1982).

prior law rules, since a profit motive could also exist in a financing arrangement. For a sale-leaseback, other nontax business motives were considered in determining the substance of the transaction.

In addition, a transaction could qualify as a lease under prior law rules only if the lessor retained meaningful benefits and burdens of ownership as well as title to the property;[5] that is, if the lessor was the person who suffered from any decline in value of the property. Thus, if the user had the option to obtain title to the property at the end of the lease for a price that was nominal in relation to the value of the property at the time when the option could be exercised, as determined at the time the parties entered into the agreement, or which was relatively small when compared with the total payments required to be made, lease treatment was denied under prior law rules.[6]

Where the residual value of the property to the lessor was nominal, the lessor was viewed as having transferred full ownership of the property for the rental fee. Where the purchase option was more than nominal but relatively small in comparison with fair market value, the lessor was viewed as having transferred full ownership because of the likelihood that the lessee would exercise the bargain purchase option.[7] Furthermore, if the lessor could force the lessee to purchase the property at the end of the lease (a "put"), the transaction might also be denied lease treatment under prior law because the put eliminated the risk borne by owners of property that there will be no market for the property at the end of the lease.

Objective guidelines used in structuring transactions

The question of exactly what burdens and benefits of ownership had to be retained by the lessor under prior law rules created some confusion for people trying to structure leases that, at least in part, were motivated by tax considerations. To give taxpayers guidance in structuring leveraged leases (i.e., where the property is financed by a nonrecourse loan from a third party), the Internal Revenue Service in 1975 issued Revenue Procedure 75–21, 1975–1 C.B. 715, and a companion document, Revenue Procedure 75–28, 1975–1 C.B. 752 (the guidelines). If the requirements of the guidelines were met and if the facts and circumstances did not indicate a contrary result, the Service issued (and continues to issue) an advance letter ruling under the prior law rules that the transaction was a lease and that the lessor was the owner for Federal tax purposes. The guidelines applied only to leveraged leases of equipment; the general principles described above continued to govern nonleveraged leases and leases of real property. The guidelines were not by their terms a definitive statement of legal principles and were not intended for audit purposes. If all requirements of the guidelines were not met, a letter ruling could still be issued in appropriate cases if, after considering all facts and circumstances, a transaction was a lease under the general principles discussed previously. However, in practice, many taxpayers took into account the guidelines' requirements in structuring transactions. The guidelines may be viewed as a type of safe harbor.

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[5] *See, Frank Lyon Co.* v. *United States*, 435 U.S. 561 (1978) *rev'g* 536 F.2d 746 (8th Cir. 1976); *Swift Dodge* v. *Commissioner*, 76 T.C. 547 (1981); Rev. Rul. 55–540, 1955–2 C.B. 39 (and cases cited therein).

[6] *See*, Rev. Rul. 55–540, 1955–2 C.B. 39 (and cases cited therein).

[7] *See, M&W Gear Co.* v. *Commissioner*, 446 F.2d 841 (7th Cir., 1971).

The specific requirements for obtaining a ruling under the guidelines are as follows:

1. *Minimum investment.*—The lessor must have a minimum 20 percent unconditional at-risk investment in the property. This rule represents an attempt to ensure that the lessor must suffer some significant loss if the property declines in value if he is to be considered the owner for tax purposes.

In general, an investment is an at-risk investment if the lessor uses cash or borrowed funds for which the lessor is personally liable. The net worth of the lessor must be sufficient to satisfy any such personal liability. If the lessor's only liability upon failure to pay the debt is to return the property (i.e., a nonrecourse loan), the borrowed funds are not at risk.

The minimum investment test is applied with respect to the original cost of the property. The lessor must maintain this minimum investment throughout the lease term. The lessor is not considered to have maintained a minimum investment throughout the lease term (including renewals and extensions) unless the lessor's total anticipated profit from the transaction (determined without regard to tax benefits) is realized no more rapidly than ratably over the lease term. In addition, it must be anticipated that at the end of the lease term the residual value of the property will be an amount equal to at least 20 percent of the property's cost. The remaining useful life of the property at the end of the lease term must be the greater of one year or 20 percent of the original useful life.

2. *Purchase options.*—In general, the lessee may not have an option to purchase the property at the end of the lease term unless, under the lease agreement, the option can be exercised only at fair market value (determined at the time of exercise). This rule precludes fixed price purchase options, even at a bona fide estimate of the projected fair market value of the property at the option date. In addition, the lessor cannot have a contractual right to require the lessee to purchase the property (a put).

The fair market value purchase option requirement fulfills three purposes related to the determination of the economic substance of the transaction. First, it ensures that the lessor bears the risk implicit in ownership that no market will exist at the end of the lease. The owner of depreciable property is the person who bears any decline in value of the asset. Second, it ensures that the lessor has retained an equity interest in the property. Any fixed price option represents a limitation on the lessor's right of full enjoyment of the property's value. Third, it limits the ability of the parties to establish an artificial rent structure to avoid the cash flow test (described below). However, several courts have held that the mere existence of a fixed price purchase option does not prevent lease treatment so long as the lessor retains other significant burdens and benefits of ownership.[8] In addition, because Revenue Procedure 75–21 generally is considered a safe harbor, a favorable ruling still could be issued under the general principles discussed above despite the existence of a fixed price purchase option.

3. *Lessee investment precluded.*—Neither the lessee nor a party related to the lessee may furnish any part of the cost of the property.

[8] See e.g., *Swift Dodge* v. *Commissioner*, 76 T.C. 547 (1981).

The rationale is that a lessee investment may suggest that the lessee is in substance a co-owner of the property.

As originally set forth, the guidelines took the position that the lessee could not make any nonseverable improvements to the property. The I.R.S. substantially revised its position on lessee improvements in Revenue Procedure 79–48, 1979–2 C.B. 529. Under Revenue Procedure 79–48, a lessee generally may furnish the cost of (1) property that could be leased separately, and (2) severable improvements that are not required to make the facility complete. Under certain conditions, a lessee may furnish the cost of a nonseverable improvement. In general, these conditions prevent the lessee from (1) obtaining an equity investment and (2) rendering the property usable only by the lessee (limited use property).

4. *No lessee loans or guarantees.*—As a corollary to the prior rule, the lessee must not loan to the lessor any of the funds necessary to acquire the property. In addition, the lessee must not guarantee any lessor loan.

5. *Profit and cash flow requirements.*—The lessor must expect to receive a profit from the transaction and have a cash flow from the transaction independent of tax benefits. For profitability, gross rents over the course of the lease plus estimated residual value must exceed equity investment plus debt service and other transaction costs.

As mentioned previously, a profitability requirement is based on the requirement that lease transactions must have a business purpose independent of tax benefits. Some argue that business purpose and economic substance do not exist unless the lessor can show a pre-tax profit on a present value basis. Revenue Procedure 75–21 has never imposed a present value test for profitability. However, the IRS audit handbook indicates that a present value analysis may be used in determining profitability. Thus, the present value of the rent and residual value would have to exceed the present value of the lessor's total investment (cash plus principal and interest on a loan).

The cash flow test must be met in addition to the profitability test. The cash flow test is met if rent exceeds by a reasonable minimum amount the lessor's debt service obligations (principal and interest on a loan), excluding the initial equity investment (except direct costs to finance the equity investment). Thus, the lessor's profit may not be derived solely from residual value. A transaction that projects an overall profit because of a high residual value may fail the cash flow test.

6. *Limited use property.*—Under Revenue Procedure 76–30, 1976–2 C.B. 647, property that is limited to use by the lessee (limited use property) is not eligible for lease treatment. The rationale is that if the lessee is the only person who could conceivably use the property, the lessor has not retained any significant ownership interest. The standard is whether a reasonable prudent businessman would find that the property was limited use property on the basis of present knowledge and generally accepted engineering principles. For example, assume the lessor builds a chemical production facility. The ground on which the plant is located is owned by the lessee and leased to the lessor pursuant to a ground lease whose term is coextensive with the estimated life of the facility. The commercial use of the plant requires technical

know-how possessed only by the lessee. In general, the property would be limited use property. However, if the lessor has the right to purchase the lessee's trade secrets or if the lessor can modify the plant for its own use, the facility may be leased (Rev. Proc. 76–30).

Amount and timing of deductions

Assuming the transaction is a lease, the lessor must determine the cost or other basis it may depreciate. In general, the lessor cannot depreciate an amount representing funds borrowed to acquire the property if the lessor's obligation to repay those borrowed funds were contingent upon receipt of rent from the lessee.[9] The rationale for this rule is that these contingent payments do not represent an actual cost.

In addition to determining the lessor's depreciable basis, the lessor must determine for tax purposes the proper timing of rental income, and the lessee must determine the proper timing of rental deductions. Although rent payments do not necessarily have to be reported on a straight-line basis over the term of the lease, the rent payments reported for a particular year generally must represent a fair rental value for use of the equipment for the year to permit a proper determination of net income for the year. Thus, deferred rent payments may be reallocated to earlier periods for inclusion in income by the lessor. Prepaid rent may be reallocated to later periods for deduction from income by the lessee. Revenue Procedure 75–21 provides a safe harbor under which uneven rent payments will not be treated as prepaid or deferred rent if the payments are within 10 percent of a straight-line amount.

Safe-harbor Leasing

Overview

The safe-harbor leasing provisions of ERTA are intended to permit owners of property who cannot use the tax benefits of ownership (e.g., depreciation and investment credit) to transfer some of those benefits to persons who can use them without having to meet the prior law requirements for characterizing the transaction as a lease. The safe-harbor leasing provisions operate by guaranteeing that for Federal tax purposes qualifying transactions will be treated as leases, and that the nominal lessor will be treated as the owner of the property, even though the lessee is in substance the owner of the property and the transaction otherwise would not be considered a lease.

Eligibility requirements

To qualify for the safe harbor, a transaction must meet the following requirements:

1. All parties to the agreement must elect to have the transactions treated as a lease;

2. The nominal lessor must be (a) a corporation (other than a subchapter S corporation or a personal holding company), (b) a partnership all of the partners of which are one of the corporations described in (a), or (c) a grantor trust with respect to which the grantor and all beneficiaries of the trust are corporations or a partnership comprised of corporations;

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[9] *C.f., Associated Patentees, Inc.*, 4 T.C. 979 (1945) (acq.); *Security Flower Mills v. Commissioner*, 321 U.S. 281 (1944).

3. The lessor must have a minimum at-risk investment in the property at all times during the lease term of at least ten percent of the adjusted basis of the property; [10]

4. The lease term must not exceed the greater of 90 percent of the property's useful life or 150 percent of the ADR midpoint life of the property; and

5. The property must be "qualified leased property."

Qualified leased property

In general, qualified leased property means new equipment eligible for both ACRS and the investment credit. The equipment may be leased within 3 months after the property is placed in service without violating the requirement that the equipment be new equipment. Property used by a tax-exempt organization or a U.S. Federal, State, or local governmental unit generally is ineligible. (Property used by a foreign government is eligible if it meets the other requirements for eligibility.) However, under a special exception, qualified mass commuting vehicles financed in whole or in part by tax-exempt bonds are eligible even though the property is used by a tax-exempt organization or governmental unit. For mass commuting vehicles, the lessor is eligible for ACRS deductions but not the investment credit.

Factors disregarded

If a transaction meets the safe-harbor requirements, the transaction will be treated as a lease entered into by the parties to the agreement, and the nominal lessor will be treated as the owner for Federal tax purposes. Thus, the nominal lessor will be entitled to the associated cost recovery allowances and investment credit. The following factors, therefore, will not be taken into account in determining whether a transaction is a lease, as they had been under prior law:

1. The fact the lessor or lessee must take the tax benefits into account in order to realize a profit or cash flow from the transaction;

2. The fact the lessee is the owner of the property for State or local law purposes (e.g., has title to the property and retains the burdens, benefits, and incidents of ownership, such as payment of taxes and maintenance charges with respect to the property);

3. The fact that no person other than the lessee may be able to use the property after the lease term;

4. The fact the property may (or must) be bought or sold at the end of the lease term at a fixed or determinable price or the fact that a rental adjustment is made upward or downward to reflect the difference between the expected residual value of the property and the actual sales price; and

5. The fact the lessee, or a related party, has provided financing or has guaranteed financing for the transaction (other than for the lessor's minimum 10 percent investment).

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[10] This safe-harbor rule differs from the corresponding prior law rule in two respects. First, the minimum investment is reduced from 20 percent to 10 percent under the safe harbor. Second, the minimum investment does not have to be maintained at the same level throughout the lease term since the test is applied with reference to adjusted basis (original basis reduced by depreciation deductions).

Amount and timing of deductions and credits

The legislative history of the safe harbor provisions suggests that a lessor's basis in the leased property includes the entire amount of any obligation with respect to the property even if the obligation of the lessor is contingent or offset by rental payments. This rule, which overrides prior case law, eliminates the need for the parties to actually make the offsetting payments to ensure the tax consequences of basis, income, and deductions that would have occurred if the payments had been made. However, the lessor must report as income all rental payments due, even if not actually received because of the offset agreement. In addition, the legislative history suggests that the lessor must report the rental income on a ratable basis, eliminating the deferral of income to the lessor that would result by virtue of, for example, a balloon payment agreement. With respect to interest deductions, calculations under a level payment mortgage assumption are permitted.

Description of safe-harbor transactions

The safe-harbor rules have been used to guarantee lease treatment for several types of transactions. Most of these transactions fall into two categories. The transactions in the first category are often referred to by practitioners as tax benefit transfers because their only purpose is the transfer of tax benefits. (Another name used is wash sale-leasebacks.) Although the safe harbor has been used primarily for this purpose, it has also been used to guarantee lease treatment for lease financings, which involve nontax business considerations.[11]

Tax benefit transfers

Treasury regulations contemplate that those who use the safe harbor leasing rules for tax benefit transfers will structure their transactions as a particular kind of sale and leaseback. This type of transaction involves three steps. First, the seller/lessee (who may be either an individual or a corporation) acquires the property with its own funds or borrowed funds and then, within three months, transfers it in a nominal "sale" to the buyer/lessor. In exchange, the seller/lessee receives cash for a part of the selling price and a level payment nonrecourse note for the balance. The seller/lessee continues to use the property and typically enjoys all the economic benefits and burdens of ownership. In the standard transaction, the user of the property retains all incidents of State law ownership. For Federal income tax purposes, however, the buyer/lessor may claim the cost recovery deductions and investment credits allowable for the property. The second step is that the seller/lessee nominally leases the property back from the buyer/lessor. The lease rental payments to the buyer/lessor are structured so as to exactly equal the debt service payments to the seller/lessee arising from the nonrecourse note in

[11] A third type of lease, the so-called lease-leaseback or ITC strip, is intended to transfer only the investment tax credit. Current Treasury regulations do not cover this transaction, and it is not dealt with in this report. H.R. 6056 (Technical Corrections Act of 1982), as ordered reported by the Ways and Means Committee, would permit ITC strips for transactions entered into before October 20, 1981, the date when the Treasury regulations were published. Finally, it is possible to structure a lease so that the lessee retains the investment credit and the lessor the depreciation deductions (sec. 48(d)).

stage one. Thus, no cash changes hands during this second stage. However, because the debt service payment consists of both interest and principal, the excess of lease rent over interest for any taxable year (which equals the principal repaid in the year) is treated for Federal income tax purposes as income to the buyer/lessor and as a deduction for the seller/lessee. Third, at the end of the lease, the seller/lessee nominally repurchases the property for a token amount, such as $1.

The substantive effect of this sale-leaseback transaction is that the buyer/lessor has purchased a stream of tax benefits from the seller/lessee for an amount equal to the cash paid for the property during the first stage of the transaction. (This is the only cash which changes hands, apart from the nominal amount paid for repurchase of the property in stage three.) The stream of tax benefits purchased by the buyer/lessor equals the ACRS cost recovery deductions, plus the investment tax credit (including the energy credit if applicable), minus the net rental income arising from the lease (the excess of lease rentals over interest on the nonrecourse note, which precisely equals the principal payments on the note).[12]

Lease financings

In addition to tax benefit transfers, the safe-harbor leasing provisions have been used to guarantee lease treatment for lease financing transactions that meet most, but not all, of the requirements of the guidelines. Often, the requirement of the guidelines that these lessors and lessees want to avoid is the prohibition on options for the lessee to purchase the property at a fixed price determined at the time of the agreement. For example, assume a farmer wants to buy a tractor but lacks a downpayment and credit rating to purchase and lacks the tax base to use the tax benefits of ownership. Instead, the farmer leases the tractor from a financing subsidiary of the tractor dealer or manufacturer. Because the farmer wants certainty regarding the cost of acquiring eventual ownership, the farmer may want a fixed price purchase option, which in this type of transaction might be 20 percent of cost. The exercise of a fixed price purchase option would violate the guidelines. However, the safe harbor guarantees lease treatment for the transaction even though the lessee has a fixed price purchase option.

The safe harbor has also been used to guarantee lease treatment for lease financings that involve an adjustment of rent at the end of the lease to make up for any difference between what was originally expected to be value of the property at the end of the lease and the actual value of the property at that time. For example, car rentals often require lessees to make up the difference between the projected wholesale blue book value of the car upon termination of the lease and the actual value of the car at that time. Also, rentals can be structured to

[12] As an alternative to this type of transaction, in which the user holds State law title to the property, a tax benefit transfer may be structured in the following manner: First, a bank or other financing party acquires the property and leases the property to the user in a transaction that meets the requirements for lease treatment under Rev. Proc. 75–21. Second, the lessor does a safe-harbor sale and leaseback to transfer the tax benefits to another party. The distinguishing feature of this type of tax benefit transfer is that the bank or other financing party rather than the user is the actual owner of the property. Table 7 (below) shows that about 8 percent of the present value of the revenue loss from safe-harbor leases involved a leasing company or financial institution as the seller/lessee.

return to the lessee any excess of proceeds from selling the car over assumed residual value. The question under prior law rules was whether the rental adjustment clause shifted meaningful burdens and benefits of ownership to the lessees.[13]

Also, the 90-day window in the safe-harbor rules encourages businesses to use the safe harbor because they need not finalize their lease by the exact date on which the property is put in service. Under prior law, if a sale and leaseback was entered into after the property was placed in service, the property could be characterized as used property and subjected to the limits on the investment credit for used property.

[13] *See, Swift Dodge* v. *Commissioner*, 76 T.C. 547 (1981).

II. NUMERICAL EXAMPLES OF LEASE TRANSACTIONS

This section presents two numerical examples of a lease of an asset with a 6-year useful life. In each case, the property subject to the lease costs $1 million. In the first example, the user of the property finances it himself and sells the tax benefits associated with the property in a wash sale-leaseback under the safe-harbor rules. In the second example, the property is owned by the lessor and financed partly through the lessor's equity investment and partly through a nonrecourse loan from a bank.

Safe-harbor Wash Sale-leaseback

Explanation of transaction

This example illustrates how a safe-harbor wash sale-leaseback of property between a seller/lessee and a buyer/lessor can be used to transfer tax benefits without affecting economic substance in any other significant respect. The seller/lessee is the user of the property, the seller of tax benefits and the nominal lessee in the agreement. He is assumed to have no taxable income in current and future years. The buyer/lessor is the buyer of tax benefits and the nominal lessor in the agreement. He expects that a 46-percent tax rate (the top corporate rate) will apply to changes in his taxable income in current and future years. The property is assumed to be equipment which is in the 5-year recovery class under ACRS, has a class life of 6 years (its midpoint life under the Asset Depreciation Range system under prior law) and has been purchased from an equipment supplier by the seller/lessee for $1 million. (Whether the seller/lessee finances the property with debt or equity is immaterial for this example.)

Under the safe-harbor leasing agreement, the buyer/lessor nominally purchases the property from the seller/lessee for $1 million, paying $214,000 in cash and giving a $786,000 nonrecourse note for the balance of the purchase price. (This sale is only a paper transaction which is intended to have no impact for purposes other than federal taxes.) The note is for 9 years at 17 percent annual interest, and payments for principal and interest are to be made in equal annual installments of $176,600, beginning one year after the date the agreement is executed. In return, the seller/lessee agrees to lease back the equipment for 9 years (the maximum lease term allowed for this asset under the present safe-harbor rules) and to pay an annual rental of $176,600, also beginning one year after the date the lease is executed. As this annual rental payment from the seller/lessee exactly offsets the annual debt service payment to the seller/lessee, the only amount of money which changes hands between the parties is the initial cash payment of $214,000. (In other words, the nonrecourse note and lease are both purely paper transactions with no substantive impact other than for federal taxes.) At the end of the lease, the property is repurchased by the

seller/lessee for $1, completing the transaction. Both the seller/lessee and buyer/lessor are assumed to pay $2,400 to third parties, such as lawyers and investment bankers, for arranging the transaction.

The results of the agreement are as follows:

The buyer/lessor receives the investment tax credit. Also, the taxable income of the buyer/lessor is increased by rental income from the lease and is decreased by deductions for ACRS depreciation, interest paid on the nonrecourse loan to the seller/lessee and amortized payments to third parties. As shown in table 1, this results in a net reduction in taxable income of the buyer/lessor in the early years of the lease and a net increase in the later years. The resulting change in tax liability is shown in the rightmost column of the table. Taking into account the time value of money, the present value of this stream of tax changes (discounted at an after-tax rate of 12 percent) is a tax savings of $276,800. This also represents the present value of the revenue loss to the Treasury from the lease. By paying $214,000 to the seller/lessee and $2,400 to third parties, the buyer/lessor pays $276,800 less in tax, a net benefit of $60,400 in constant (present) dollars. This benefit is 21.8 percent of the present value of the total revenue loss to the Treasury due to the agreement.

For all purposes other than federal income taxes, the seller/lessee continues to own the property. For the seller/lessee, the cost of the property it uses is reduced by the cash it received from the buyer/lessor ($214,000) less the amount it paid to third parties ($2,400).

Table 1.—Tax Change of Buyer/Lessor

[All amounts in $1,000]

Year	Change in taxable income					Change in tax [3]
	Rental income	Depreciation	Interest paid	Amortized fees	Net	
1981	0	−150	0	([2])	−150.0	[1]−169.0
1982	176.6	−220	−133.6	−0.3	−177.3	−81.5
1983	176.6	−210	−126.3	−0.3	−160.0	−73.6
1984	176.6	−210	−117.8	−0.3	−151.5	−69.7
1985	176.6	−210	−107.8	−0.3	−141.5	−65.1
1986	176.6	0	−96.1	−0.3	80.2	36.9
1987	176.6	0	−82.4	−0.3	93.9	43.2
1988	176.6	0	−66.3	−0.3	110.0	50.6
1989	176.6	0	−47.6	−0.3	128.7	59.2
1990	176.6	0	−25.7	−0.2	150.7	69.3

[1] Includes investment credit of $100,000. Lease is executed in November 1981. The example neglects the relatively minor rental income and interest deductions which an accrued basis lessor would report in 1981.

[2] Less than $50.

[3] The present value of these tax changes is a reduction of $276,800. A 12-percent after-tax discount rate is assumed.

Thus, the benefit to the seller/lessee is $211,600, or 76.4 percent of the total revenue loss to the Treasury. Also, the seller/lessee has deductions for net rent equal to the rental payments it makes to the buyer/lessor minus the interest payments it receives from the buyer/lessor. These deductions could be valuable if the seller/lessee becomes taxable in the future, although this is not assumed in the example.

Lastly, third parties receive $4,800, or 1.7 percent of the total revenue loss to the Treasury.

This wash sale-leaseback can be summarized as follows: In return for a cash payment, the buyer/lessor receives positive tax benefits of the investment credit and ACRS depreciation deductions but incurs tax on the net rent. The seller/lessee receives cash, has deductions for the net rent and loses depreciation deductions and the investment credit. The sale-leaseback has essentially no other substantive impact.

Buyer evaluation of transaction

The economic gain of the buyer/lessor was determined above by applying the present value method, under which the initial cash outlay is compared with the present value of tax changes generated by the transaction over the entire lease term. Other methods for determining this gain are the sinking fund method and the alternative cost of borrowing method. The staff understands that each of these three methods is used by buyer/lessors to evaluate potential safe-harbor leasing deals.

The sinking fund method is similar to the present value method in the sense that it treats a safe-harbor lease as an investment by the buyer/lessor. Under the sinking fund method, the lease term is broken into two parts. The first part of the lease term is the investment period, during which the buyer/lessor invests cash and expects a gain in the form of reduced tax payments. To analyze the investment, the buyer/lessor calculates a rate of return on the investment. The decision to invest in the purchase of tax benefits turns on whether this calculated rate of return is higher than for alternative investments. The second part of the lease term is treated merely as a holding period over which the buyer/lessor expects no net gain or loss. In this second part, the buyer/lessor is viewed as dedicating the later installments of tax savings to an imaginary sinking fund which will be just sufficient (when increased by an assumed rate of interest earned on sinking fund balances) to cover the increased taxes that arise from the lease in subsequent years.

To illustrate the sinking fund method, assume that the buyer/lessor stipulates a sinking fund interest rate of 6 percent. Given the tax changes shown in table 1, it is necessary to start the sinking fund (and the second period) in 1983 with $67,100 of the $73,600 tax saving received at that time. Thus, the return on the buyer/lessor's initial cash outlay of $216,400 consists of his 1981 and 1982 tax savings plus $6,500 of his 1983 tax savings. These returns, which are in after-tax dollars, represent an after-tax rate of return of approximately 80 percent, indicating an excellent investment opportunity in this example.

The cost of borrowing method is conceptually different than the other two methods in the sense that it treats the safe-harbor lease not

as an investment by the buyer/lessor but rather as a source of funds. Under the cost of borrowing method, the lease term is broken into two parts. The first part of the lease term is an investment period, by the end of which the buyer/lessor will have recovered in tax savings his initial cash outlay plus a return comparable to what could have been earned by investing in a relatively short-term security at an assumed interest rate. In the second part of the lease term, the buyer/lessor is viewed as a borrower from the government. The amounts borrowed are the later installments of tax savings arising from the lease, and the amounts repaid are the subsequent tax increases arising from the lease. An implicit after-tax interest rate is computed which, if applied to the outstanding loan balance, would retire the loan at the end of the lease. The decision to enter the transaction depends on whether this computed cost of borrowing is lower than other sources of funds.

To illustrate the cost of borrowing method, assume the buyer/lessor stipulates a 16-percent pre-tax earnings rate on his initial $216,400 cash outlay during the first part of the lease. Given the tax changes shown in table 1, the investment is recovered and the required earnings are received in just one year, treating the 1981 tax saving and $51,500 of the 1982 tax saving as returns to investment. The remaining $30,000 of the 1982 tax saving is regarded as the first amount borrowed from the government, marking the beginning of the second period of the lease term. The computed, after-tax interest rate that will have been charged by the government for the buyer/lessor's use of this and successive tax savings from the lease is approximately 1.9 percent, indicating a quite favorable cost of borrowing in this example.

Alternative assumptions

The economic impact of this transaction has been measured, so far, under the assumption that the seller/lessee would never have either taxable income sufficient to absorb the ACRS benefits it sells or the net rental deductions it acquires in a safe-harbor lease or tax liability against which to use the investment credits it sells. This assumption is significant, because both the revenue loss and the seller/lessee's gain from a transaction are reduced if in fact the seller/lessee does have sufficient taxable income beginning a few years after the lease is signed. The reason is that the tax benefit from the ACRS deductions and investment credits sold by the seller/lessee always exceeds the tax benefit from the net rental deductions it acquires. This will result in a higher tax liability if the seller/lessee becomes taxable in future years, in which case the revenue loss due to the transaction will be reduced. Despite this higher tax liability, a seller/lessee who expects to become taxable in future years may still enter into a safe-harbor lease if the cash down payment from the buyer/lessor is great enough to outweigh the present value of the additional tax liability.

To illustrate how the economic impact of a safe-harbor lease can depend on the future tax position of the seller/lessee, assume that

the seller/lessee in the numerical example described above will have positive amounts of taxable income beginning in 1986 and tax liability that year against which to use investment credit carryovers. Had they been retained, the tax savings from a $1 million investment (depreciation plus investment credit) would have been worth $317,800 in present value to the seller/lessee, taking into account the fact that the seller/lessee would not use them until 1986, when they would be used as net operating loss and investment credit carryovers. In the safe-harbor lease transaction, the seller/lessee gives up these tax savings in return for $214,000 in cash and tax deductions worth $173,200 in present value which are due to net rental deductions and amortized fees. This increased tax liability for the seller/lessee of $144,600 would cut the present value of the revenue loss from $276,800 (the tax savings of the buyer/lessor) to $132,200 and would cut the overall gain of the seller/lessee from $211,600 (the cash received from the buyer/lessor less third-party fees) to $67,000. In addition, the efficiency of the transaction in directing the revenue loss to the seller/lessee would fall from 76.4 percent to 50.7 percent in this case.

Prior Law Leveraged Lease

This example illustrates how a leveraged lease can be used under the prior law rules, so that a lessee with insufficient taxable income or tax liability to benefit from ACRS for property it might have acquired can, nevertheless, benefit indirectly from ACRS for property it leases.

The lessee is the user of property owned by the lessor. Typically, the lessee expects not to have taxable income in current and future years, while the lessor expects that a 46-percent tax rate (the top corporate rate) will apply to any change in its taxable income. As owner, the lessor claims ACRS depreciation deductions and the investment credit.

In this example, the property is assumed to be equipment which is in the 5-year recovery class under ACRS and which has a 6-year useful life. The lessor is assumed to have purchased the property from an equipment supplier for $1 million, financed by $350,000 cash and a $650,000 loan at 17 percent interest. Principal and interest are to be paid according to the debt service schedule shown in table 2.

Under the lease, the lessee will pay the lessor annual rent of $220,000, beginning one year after the date the agreement is executed. The lease will expire after 5 years (so that approximately 20 percent of the original useful life remains), at which time the property is expected to be worth $260,000. It is assumed that the actual value of the property at that time is $260,000 and that it is sold to the lessee for that price. The lessor pays $5,500 to third parties for assistance in arranging the lease.

The lease in this example meets the pre-tax profit requirement of Rev. Proc. 75–21: the aggregate of rents ($1.1 million) plus represented residual value ($260,000) exceeds the aggregate of debt

service payments ($1,003,500) plus equity invested ($350,000) and fees to third parties ($5,500). It also meets the cash flow requirement of Rev. Proc. 75–21.

The results of the agreement are as follows:

The lessee pays $1.1 million in rent over 5 years. From its perspective, this is equivalent to its making a one-time rental payment of $793,100 on the lease execution date, once account is taken of the lessee's time value of money (assumed to be 12 percent annually). By making this rental payment rather than purchasing and financing the asset on the same terms as the lessor, the lessee saves a cash downpayment and debt service payments whose combined present value is $1,079,800 and loses the residual value of the asset ($260,000), the present value of which is $147,500. Thus, the present value of the gain to the lessee of leasing rather than acquiring the asset is $139,200.

It is possible for the lessor to charge favorable rents because its taxes are reduced by the investment credit and ACRS deductions for the asset and by deductions for interest paid. These tax savings amount to $160,500 in present value and are included in the lessor's after-tax cash flow in table 2. The present value of this cash flow exceeds the lessor's initial investment ($350,000 equity plus $5,500 in fees) by $15,800, which is the lessor's net gain from the lease. Note that the present value of the revenue loss arising from the prior law lease is less than under the safe-harbor lease in table 1 ($160,500 versus $276,800). Similarly, the benefit to the lessee is smaller ($139,200 versus $211,600).

It should be noted that the staff has no data on prior law leases. In practice, an important factor in determining the distribution of benefits in a prior law lease is that the actual residual value at the end of the lease can differ from the residual value forecast at the outset of the lease. Under a prior law lease, the lessor gains from any increase in residual value and suffers from any decrease. If the actual residual value is above the forecasted value, the net gain of the lessor would be higher than shown in this illustration, and the net gain of the lessee and the efficiency would be lower. Supporters of safe-harbor leasing emphasize that, frequently, prior law leases were structured so that the lessor charged such high rentals that almost all of the lessor's investment in the equipment was recouped from net rents, in which case most of the residual value of the equipment represented profit to the lessor. For example, if the residual value of the equipment turned out to be $400,000 instead of $260,000, the present value of the gain to the lessor would rise to $59,000, and the present value of the revenue loss would fall to $124,000, indicating much lower efficiency in providing assistance to lessees.

Table 2.—Tax Change and Cash Flow of Lessor in a Leveraged Lease

(All amounts in $1,000)

Year	Change in taxable income					After-tax cash flow			
	Rental income	Depreciation	Interest paid	Amortized fees	Net [1]	Rent and residual	Tax saving	Debt service	Net [2]
1981	0	−150	0	−0.1	−150.1	0	+169.0 [3]	0	169.0
1982	220	−220	−110.5	−1.1	−111.6	220	+51.3	−220.0	51.3
1983	220	−210	−91.9	−1.1	−83.0	220	+38.2	−220.0	38.2
1984	220	−210	−70.1	−1.1	−61.2	220	+28.2	−180.0	68.2
1985	220	−210	−51.4	−1.1	−42.5	220	+19.6	−180.0	59.6
1986	220	260 [4]	−29.6	−1.0	449.4	480	−206.7	−203.5	69.8

[1] Equals rental income minus depreciation minus interest paid minus amortized fees.

[2] Equals rent and residual value plus tax saving minus debt service.

[3] Includes investment credit of $100,000. Lease is executed in November 1981. The example neglects the minor rental income and interest deductions which an accrual basis taxpayer would report in 1981.

[4] Depreciation recapture upon disposition at the end of the term of the lease.

III. PUBLIC PERCEPTIONS OF SAFE-HARBOR LEASING

A fundamental principle of U.S. tax policy has been that the tax system should be structured so as to appear to be as fair as possible. Studies show that voluntary compliance with the tax laws declines rapidly to the extent people believe the tax system to be inequitable.[1] This analysis suggests that Congress should closely examine any provision of the tax law that the public views as unfair.

In the months after its enactment, the safe-harbor leasing provisions appear to have been the subject of widespread public perceptions of unfairness, perceptions which could be injurious to a tax system based on voluntary compliance.

There appear to be two theories why safe-harbor leasing presents a perception problem. One theory is that the perception problem results from the use of leasing by several well-known, profitable corporations in highly publicized transactions. General Electric, for example, has used safe-harbor leasing to purchase enough tax benefits to entitle it to a sizable tax refund. Occidental Petroleum has used leasing to sell domestic tax benefits while avoiding U.S. tax on its foreign-source income with the foreign tax credit. Companies are using leasing to avoid statutory limits on the use of other tax preferences, like the 50-percent-of-net-income limit on percentage depletion. Some view the perception problem as having been created solely by the provision allowing all equipment put in service between January 1, 1981, and August 13, 1981, to be leased if the transactions were completed by November 13, 1981. It would be possible to amend the safe-harbor provisions to eliminate these situations without affecting the basic structure of safe-harbor leasing.

A second theory of what has caused the perception problem attributes it, not to a few highly publicized transactions, but to the more fundamental issue of whether transactions without economic substance should be recognized for tax purposes, particularly when those transactions enable nontaxable companies actually to make money from the tax system by selling excess tax benefits. Under this theory, any transaction whose principal purpose is tax avoidance creates perceptions of inequity. If this is the root of the problem, the leasing perception problem can only be dealt with by restoring some economic substance to lease transactions, possibly with the prior law rules regarding profitability, State-law ownership, lessee-financing, and residual value.

[1] See, for example, Spicer and Landstedt, "Understanding Tax Evasion," 31 *Public Finance* 295 (1976); and Spicer and Becker, "Fiscal Inequity and Tax Evasion: An Experimental Approach," 33 *National Tax Journal* 171 (1980).

IV. EFFICIENCY OF SAFE-HARBOR LEASING

One argument which has been made against safe-harbor leasing is that it is an inefficient way to provide assistance to seller/lessees to the extent that buyer/lessors or third parties, such as lawyers and investment bankers, receive profits as a result of their participation in the deals. Inefficiency occurs, it is argued, whenever the amounts received by the seller/lessees are less than the revenue lost to the Treasury from leasing. It is argued that direct assistance, such as would be provided through a refundable investment tax credit, could provide the same benefits to seller/lessees at a lower cost to the federal government. Supporters of safe-harbor leasing argue that it is a relatively efficient mechanism for transferring tax benefits, particularly when compared with prior law leveraged leases, and involves lower administrative costs to the IRS than would a refundable investment credit.

The efficiency of safe-harbor leasing can be analyzed with data from safe-harbor leasing information returns filed with the Internal Revenue Service pursuant to the provisions of the Black Lung Benefits Revenue Act of 1981. Congress enacted the requirement that these returns be filed to gather information about the volume of safe-harbor leasing and its efficiency as a means of transferring tax benefits.

This section describes the results of the staff's analysis of information returns processed before late May 1982. The returns generally relate to property placed in service and leased under a safe-harbor agreement during 1981 or the first two months of 1982. The staff analysis does not apply to leases entered into after February 19, 1982, the date of Chairman Dole's speech expressing concern about leasing and his desire to modify the provision. The analysis in this section estimates how the revenue assumed to be lost by the Treasury from these transactions over the terms of the leases is distributed among seller/lessees, buyer/lessors and third parties. The staff's methodology is explained in the appendix (section XI).

It is estimated that $22.2 billion of property was covered by safe-harbor leases entered into before February 20, 1982, for which information returns were processed before late May 1982. The property was eligible for that amount of cost recovery deductions, $1.9 billion of regular investment tax credits, and $95 million of energy investment credits. The returns indicate that approximately $139 million of fees were paid to third parties for arranging these transactions.

Information returns relating to $4.8 billion of property were dropped from the analysis because they were not structured as wash sale-leasebacks or represented transactions between subsidiaries of the same company. The staff's efficiency analysis, therefore, applies to leases of $17.4 billion worth of property.

With respect to this $17.4 billion of property, there was a transfer of tax benefits (tax reductions from cost recovery deductions and in-

vestment credits minus tax increases from net rental income for the buyer/lessor) with a present discounted value of $5.6 billion. The estimated distribution of this benefit is shown in table 3. The estimated benefits to the seller/lessees amounted to $4.3 billion, and the present value of the tax benefits to the buyer/lessors is estimated to be $1.2 billion. The efficiency percentage, the fraction of the present value of the revenue loss going to the seller/lessees, is estimated to be 76.5 percent.

Table 3.—Distribution of Benefits from Safe-Harbor Agreements

(Dollar amounts in present value)

Benefits to—	Amount of benefit (millions)	Share of benefit (percent)
A. Dollar amounts discounted at 12 percent annually:		
Seller/lessee	$4, 262	76. 5
Buyer/lessor	1, 200	21. 5
Third party agents	109	2. 0
Present value of revenue loss	5, 571	100. 0
B. Dollar amounts discounted at 9 percent annually:		
Seller/lessee	4, 262	78. 4
Buyer/lessor	1, 063	19. 6
Third party agents	109	2. 0
Present value of revenue loss	5, 434	100. 0
C. Dollar amounts discounted at 15 percent annually:		
Seller/lessee	4, 262	75. 7
Buyer/lessor	1, 257	22. 3
Third party agents	109	1. 9
Present value of revenue loss	5, 628	100. 0

Under the staff's methodology, the benefit to the seller/lessee is estimated as the cash received from the sale of the tax benefits, net of fees paid to third parties by the seller/lessee. While the sale-leaseback also generates deductions for the seller/lessee equal to the net rent paid under the lease, the staff assumed that the seller/lessee derived no tax benefit from these deductions (i.e., had a zero marginal tax rate throughout the term of the lease and the loss and credit carryover period) and would have derived no benefit from cost recovery allowances or investment tax credits had they been retained. If instead it were assumed that the seller/lessee becomes taxable at some time during the term of the lease, the revenue losses and efficiency percentages would both be lower than those reported in table 3.

The benefit to the buyer/lessor is estimated as the present value of the net tax benefits he receives minus the cash payment and fees paid to third parties. As explained above, these tax benefits equal the tax reduction from cost recovery deductions and the investment tax credit, minus the tax increase from the lease rentals included in income in excess of interest deductions. The tax benefit from a deduction equals the amount of the deduction multiplied by 46 percent. Computing the present value involves assuming some discount rate. The staff analysis used 12 percent; however, the estimated efficiency percentage does not change significantly when rates of 9 percent or 15 percent are used instead of 12 percent (see table 3).[1]

The benefit to third parties is estimated as the amount reported as paid to such parties on the information return. It is assumed that the lessee and lessor split these payments evenly.

In its "Preliminary Report on Safe-Harbor Leasing Activity in 1981" (March 26, 1982), the Treasury also analyzed the safe-harbor leasing information returns and reported an efficiency percentage of 84.5 percent. The Treasury used basically the same method as the staff for determining the amount of the benefit received by buyer/lessors and third parties. However, the Treasury used a different formula than the staff in order to measure efficiency. The staff's formulation concerns the efficiency with which the revenue loss arising from a safe-harbor lease flows through to the seller/lessee. In contrast, the Treasury's formulation is not related to the revenue loss, but instead concerns the efficiency with which safe-harbor leasing potentially makes available to the seller/lessee the total tax benefits enjoyed by a fully taxable investor who does not lease. If, for example, the buyer/lessor and third parties in a transaction receive 15 percent of the investment incentives enjoyed by a fully taxable investor who does not lease, then the Treasury efficiency percentage would be 85 percent. According to Treasury, a high efficiency percentage measured in this way indicates that the market is working well in potentially providing the seller/lessee with the maximum benefit that a lease can transfer. Unlike the staff's measure of efficiency, the Treasury's measure is unaffected by the revenue loss or by the seller/lessee's ability or inability to use the ACRS benefits it sells or the net rental deductions it acquires. Arithmetically, the Treasury formula yields a higher efficiency percentage than the formula used by the staff, when all other assumptions and procedures are the same.

While seller/lessees in the aggregate received 76.5 percent of the total benefit according to the staff's analysis, many received terms that were significantly more favorable or less favorable than the average. In tranactions accounting for almost one-fourth of the present value of the revenue loss, the seller/lessee received less than 70 percent of the

[1] The reason why the efficiency percentage and the present value of net benefits to the buyer/lessor are not sensitive to the assumed disount rate (within a reasonable range) is that the pattern of cash flow to the buyer/lessor is positive in the early years and negative in the later years (see Section II). Thus, raising the discount rate reduces the present value of the positive cash flow in the early years and also reduces the present value of the negative cash flow in the later years. These effects roughly offset one another, leaving the net present value insensitive to the assumed discount rate.

revenue loss arising from the lease, including many who received less than 50 percent. In transactions accounting for almost 10 percent of the revenue loss, the seller/lessee obtained more than 90 percent of the benefit arising from the lease, including a few who obtained more than 100 percent. (An efficiency percentage greater than 100 percent indicates that the buyer/lessor paid more for the tax benefits than the staff estimates they were worth.) The distribution of transactions according to their efficiency percentage is shown in table 4.

Table 4.—Distribution of Transactions and Revenue Loss by Efficiency Percentage

(Percent)

	Efficiency percentage			
	Under 50	50–60	60–70	70–80
Percentage of transactions	5.7	10.1	14.3	29.5
Percentage of revenue loss	3.5	9.1	10.4	29.5
	80–90	90–100		Over 100
Percentage of transactions	35.3	4.5		0.6
Percentage of revenue loss	38.9	8.3		0.2

The distribution of transactions according to their size is shown in table 5. The largest transactions, those involving property worth more than $10 million, accounted for 45.9 percent of all transactions and 93.1 percent of the present value of the total revenue loss. In contrast, the smallest transactions, those involving property worth less than $100,000, accounted for 6 percent of all transactions and a negligible percentage of the total revenue loss.

Table 5.—Distribution of Benefits by Size of Transaction

(Percent)

	Size of transaction			
	Under $0.1 million	$0.1–1.0 million	$1–10 million	Over $10 million
Share of benefits to—				
Seller/lessee	61.7	66.7	70.2	77.0
Buyer/lessor	33.9	28.3	23.4	21.4
Third party agents	4.4	5.0	6.4	1.6
All parties	100.0	100.0	100.0	100.0
Percentage of transactions	6.0	16.9	31.2	45.9
Percentage of revenue loss	(*)	0.5	6.4	93.1

* Less than 0.1 percent.

On average, the efficiency percentage was the highest in the largest transactions and the lowest in the smallest transactions. Seller/lessees received 77 percent of the present value of the revenue loss arising from leases of property worth more than $10 million, whereas they received 61.7 percent of the present value of the revenue loss arising from leases of property worth less than $100,000.

The distribution of transactions according to the month in which they were reported to have been executed is shown in table 6. More than one-half of the transactions were executed in November 1981. November 13 was the cutoff date for the special period during which safe-harbor leasing was allowed for property placed in service during 1981 but prior to the enactment of ERTA, and the relatively large supply of available tax benefits at this time could have contributed to an efficiency percentage for November leases that is below the average for the next three months. The efficiency percentage reached its highest level in December 1981. This year-end improvement could be due to the increased sophistication of seller/lessees as they became familiar with a new type of investment, to the greater demand to buy tax benefits by calendar-year taxpayers near the close of their taxable year (when the present value of the benefits is higher), and to the reduced uncertainty which buyer/lessors associated with their purchase of tax benefits as safe-harbor leasing became more widespread. The efficiency percentage in January 1982 declined to about 76 percent but it rose back over 80 percent in February.

Table 6.—Distribution of Transactions by Execution Date (Percent)

	Date lease was executed				
	Nov. 1981	Dec. 1981	Jan. 1982	Feb. 1982 [1]	Unknown or other [2]
Share of benefit to:					
Seller/lessee	73.8	81.1	75.5	80.4	74.2
Buyer/lessor	24.0	17.4	22.1	18.1	25.2
Third party agents	2.2	1.5	2.5	1.5	0.6
All parties	100.0	100.0	100.0	100.0	100.0
Percentage of transactions	55.7	31.1	4.4	7.0	1.8
Percentage of revenue loss	60.2	30.0	1.9	7.2	0.7

[1] Before February 20.

[2] These consist principally of agreements executed in September and October 1981.

V. USE OF SAFE-HARBOR LEASING BY INDUSTRY

The data from the information returns make it possible to determine which industries sold tax benefits with safe-harbor leases. This industry distribution is shown in table 7 for all industries which leased more than $100 million in equipment in the period before February 20, 1982. The table presents the value of equipment subject to safe-harbor leases, the amount of cash received by the seller, the present value of the revenue loss resulting from the lease and the efficiency percentage (see section IV). The table is limited to safe-harbor leases which took the form of wash sale-leasebacks, on the assumption that most other types of leases would have taken place under the prior law rules had the safe-harbor rules not been enacted. (Similarly, some of the property involved in the wash sale-leasebacks would have been leased under prior rules.)

The largest user of safe-harbor leasing was the forest products industry, followed by the utility industry and the railroad industry. Other large lessees included distressed industries like autos and airlines, but also profitable, capital-intensive industries like oil and gas, chemicals, and steel. Equipment lessors sold a large amount of tax benefits; presumably they "laid off" their excess tax benefits derived from traditional leasing through safe-harbor leases.

Industries varied in the extent to which they were able to translate a given amount of tax benefits into cash. A number of industries had efficiency percentages above 80 percent. However, local and intercity transit had an efficiency percentage of only 60 percent.

Table 7.—Use of Safe-Harbor Leasing by Industry

(Millions)

Industry of seller/lessee	Basis of property	Cash payment to lessee [1]	Present value of revenue loss	Efficiency percentage [2]
Mining—metals and coal	$330	$86	$114	74
Oil and gas	1,202	308	402	76
Nonmetallic minerals	196	61	70	86
Forest products	1,801	541	642	84
Chemicals	1,316	336	398	84
Rubber	266	65	87	74
Cement	551	149	194	76
Ferrous metals	1,082	326	444	73
Nonferrous metals	414	108	125	86
Local and intercity transit	174	28	44	60
Communication equipment	157	44	53	82
Motor vehicles	1,315	238	299	79
Aircraft manufacturing	221	56	71	78
Railroads	1,594	412	569	71
Fabricated metal products	158	37	52	70
Shipping	223	63	80	78
Airlines	1,392	361	495	72
Communications	430	101	127	79
Utilities	1,685	419	555	75
Financial institutions	361	71	92	77
Equipment and other lessors	1,548	289	378	75
Total (including industries not listed separately)	17,410	4,316	5,571	77

[1] Does not include any offset for fees paid by lessee to third parties.

[2] This is the cash payment to the lessee minus fees assumed to be paid by the lessee t third parties divided by the revenue loss. All present value calculations assume a 12-percent discount rate.

VI. LEASING BY PUBLIC AND QUASI-PUBLIC ENTITIES

Certain unique questions arise when leasing is used by the public sector. The evidence from the information returns analyzed in the two preceding sections indicates that safe-harbor leasing is a significantly less efficient way of providing assistance to seller/lessees than direct federal appropriations or refundable tax credits (in which essentially all of the loss to the Treasury would be flowed through to the lessee). Thus, there may be avoidable waste involved when safe-harbor leasing is used by a public or quasi-public entity for whom there already exists, or for whom it would be easy to design, a direct spending program.

As a general rule, the public sector is not eligible for safe-harbor leasing. The eligibility rules in the Code for safe-harbor leasing are the same as those for the investment tax credit, which is denied for property used by governmental units, international organizations and tax-exempt organizations (other than farmers' cooperatives). However, there is a special rule making eligible for safe-harbor leasing buses, subway cars and rail cars used for mass commuting. Also, several nominally private sector organizations, such as Amtrak and Conrail, currently receive (or have received in the recent past) substantial direct federal subsidies.[1] Both Amtrak and Conrail have sold tax benefits using safe-harbor leasing arrangements. Property used by governmental units is eligible for leasing under prior law rules.

Public mass transit systems will receive an estimated $3.8 billion in federal grants in fiscal year 1982, to be reduced to $3.3 billion in 1983 under the Administration's proposed budget. Several of these systems have sold depreciation deductions using safe-harbor leasing arrangements. (The property is not eligible for the investment credit.) As shown in table 7, local and intercity transit systems used safe-harbor leases to sell tax benefits related to $174 million of property, generating a revenue loss whose present value is $44 million. They received cash payments of $28 million.

In order to study the issue, the staff requested and received copies of certain safe-harbor lease agreements executed by Amtrak and the Metropolitan Transportation Authority (MTA) of New York City. The same methodology was used to analyze these agreements as was used elsewhere in this pamphlet.

In the MTA case, MTA as seller/lessee and Metromedia, Inc., as buyer/lessor agreed to a wash sale-leaseback relating to approximately $11.9 million of commuter rail cars. Metromedia paid $2.9 million in cash and delivered 30-year nonrecourse notes at 18.75 percent annual interest for the balance. Taking into account the time value of money the present value of federal income tax savings purchased by Metro-

[1] The National Railroad Passenger Corporation (Amtrak) receives direct federal subsidies which, in 1981, covered 60 percent of its costs. The Amtrak Improvement Act of 1981 requires that Amtrak increase to 50 percent the percentage of its costs covered by its own revenues. The Administration's budget for fiscal year 1983 includes $610 million in outlays for Amtrak subsidies, down from estimated outlays of $830 million in 1982.

Conrail has received operating subsidies in the past, but it has not requested such assistance for fiscal year 1983.

media is $4.1 million. This present value is essentially the same for any annual aftertax discount rate between 10 to 14 percent. It includes ACRS depreciation deductions purchased by Metromedia less the excess of lease rental payments over lease interest payments that are taxable income to Metromedia.

Thus, out of a federal commitment of $4.1 million, MTA received $2.9 million through safe-harbor leasing, whereas it would have received the entire $4.1 million had the commitment been made as a direct grant. The efficiency of safe-harbor leasing in directing benefits to the target was 71 percent in this instance, before account is taken of any fees that MTA may have incurred for the transaction.[2]

MTA would have had difficulty using leasing prior law. First, there is a good chance that the subway cars would have been characterized as special use property. Second, the prohibition on lessee-financing under prior law would have prevented MTA from financing the property with tax-exempt bonds.

In the second case, Amtrak as seller/lessee and General Electric Company as buyer/lessor agreed to wash sale-leasebacks relating to approximately $215 million of locomotives, railcars and track and betterments. General Electric paid $54 million in cash and delivered 22-year nonrecourse notes at 16.5 percent annual interest for the balance. The present value of tax savings purchased by General Electric, for any annual after-tax discount rate between 10 and 14 percent, is about $87 million. In this instance, investment credits as well as ACRS depreciation deductions were transferred.

Thus, out of a federal commitment of $87 million, Amtrak received $54 million through safe-harbor leasing, whereas it would have received the entire $87 million had the commitment been made as a direct grant. The efficiency of safe-harbor leasing in directing benefits to Amtrak was about 62 percent in this instance, before account is taken of any fees that Amtrak may have incurred for the transaction. The federal revenue loss from the Amtrak lease equals almost 40 percent of the reduction in Amtrak's direct appropriation between estimated fiscal year 1982 outlays and the Administration's proposal for 1983.

These agreements indicate the possible magnitude of the additional cost of substituting safe-harbor leasing tax benefits for direct outlays to public mass transit systems and quasi-public organizations. In the MTA agreement, the federal cost of a $1 benefit to MTA was about $1.40. In the Amtrak agreement, the federal cost of a $1 benefit to Amtrak was about $1.60. As shown in table 7, the efficiency percentage for all leasing of local and interurban transit equipment was only 60 percent. In these cases, the relatively inefficient form of federal assistance was being provided during a period in which direct appropriations were being reduced. Whatever inefficiency exists in the use of safe-harbor leasing by public and quasi-public entities must, of course, be compared with whatever administrative costs and other inefficiencies would exist under direct subsidy programs in comparing safe-harbor leasing with those direct programs.

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[2] MTA also leased $89.7 million worth of buses, for which it received $12.6 million. The staff has not analyzed this transaction. MTA paid fees of $1.4 million in connection with the safe-harbor leases, for which it received a total of $15.5 million in cash. The price of the tax benefits in the MTA deals was set in October, at a time when the average price of tax benefits was lower than it was later on in the year.

VII. EFFECT OF SAFE-HARBOR LEASING ON EQUALITY OF INVESTMENT INCENTIVES

One of the principal arguments made in favor of safe-harbor leasing is that it helps equalize investment incentives between firms with different tax situations. Such a "level playing field" would promote competition and lead to a more efficient allocation of capital. The staff's analysis, however, concludes that the effect of safe-harbor leasing on equality of investment incentives is ambiguous: in some cases it helps and in other cases it hurts. Furthermore, in certain cases, leasing can encourage firms to make investments which would be unprofitable on a pre-tax basis, and diverting capital to such investment projects can reduce productivity.

To illustrate how safe-harbor leasing can affect relative investment incentives, it is helpful to consider a highly simplified example. Consider a piece of equipment that costs $100 and is expected to generate $110 of income in the next year, after which it will be scrapped. Assume that the tax rate is 50 percent and that taxpayers can deduct the cost of assets in the year purchased (expensing). Also, consider three businesses: one which expects to be taxable in both years, one which expects to be taxable in neither year (perhaps because it has large loss carryovers) and one which expects to be taxable in the second year but not in the first year.

For the fully taxable company, the rate of return from making this investment will be 10 percent. Because the company gets a tax deduction worth $50, its after-tax investment will be $50. Its aftertax return in the second year will be $55, leading to a rate of return after taxes of 10 percent.

For the fully nontaxable company, the rate of return on this investment will also be 10 percent, the same as for the fully taxable company. Because this company derives no tax benefit from the expensing deduction, its aftertax investment will be the full $100, and because its loss carryover will wipe out any tax on its income in the second year, its aftertax return will be the full $110. It receives a 10-percent rate of return, exactly the same as for the fully taxable company. Comparing the fully taxable and fully nontaxable companies illustrates the proposition that expensing is equivalent to a zero tax rate in terms of its effect on investment incentives. This equivalence holds without the need to introduce safe-harbor leasing, refundability or any other way for the nontaxable company to cash in its excess tax benefits.

Suppose, instead, that the fully nontaxable company were able to sell its expensing deduction in a safe-harbor leasing transaction for $20. Its net cost for the investment would then be $80, and its rate of return would be 37.5 percent ($30 profit on a $80 net investment). Thus, in this simplified example, safe-harbor leasing would convert a situation in which investment incentives were equal into one in which the nontaxable firm would have a stronger incentive to invest than a

fully taxable firm. Furthermore, the fully nontaxable firm would have an incentive to purchase assets that are expected to lose money on a pre-tax basis. If its net investment cost is only $80, the nontaxable firm can pay $100 to buy assets expected to earn as little as $88 and still earn its 10 percent rate of return. Of course, to the extent that capital is diverted from assets that will earn $110 to ones that will earn only $88, economic growth will suffer.[1]

A case in which leasing helps equalize investment incentives is when it is used by a company that is not taxable in the first year but is taxable in the second year. Without leasing, this company's after-tax rate of return on the investment discussed above would be only 5 percent, so that it would be at a disadvantage relative to both the fully taxable and fully nontaxable firms. Transferring tax benefits through safe-harbor leasing would help give the temporarily nontaxable firm investment incentives similar to those of the other firms in this example without leasing. Another way to equalize investment incentives would be to allow the amount of a net operating loss carryover to increase at a rate of interest to preserve the present value of the expensing deduction. Under this proposal, the temporarily nontaxable firm would deduct a $110 loss carryover in year two, and would earn the full 10-percent return on the investment.

These simplified examples are, of course, only useful as illustrations. More realistic examples are too complicated to analyze quantitatively here, but it is possible to summarize the outlines of a more detailed analysis. The actual ACRS system for the 3- and 5-year classes is somewhat more generous than expensing, which means that taxable firms in fact have incentives to invest which are greater than those faced by fully nontaxable firms without leasing. This problem could be corrected by scaling back ACRS or the investment credit to the point where it is no more generous than expensing. Also, to the extent that taxable firms use debt finance, they can benefit from interest deductions, while nontaxable firms cannot. (Most corporate investment, however, is financed out of retained cash flow, not debt.) As a result, without leasing but with present cost recovery rules, fully taxable firms would have a stronger incentive to invest than fully nontaxable firms.

Another important qualification is that the simple example discussed above ignores risk, a factor to which the economists at the Treasury Department attach particular importance. Without safe-harbor leasing, the income tax creates a bias against risky investments because taxpayers cannot be sure of getting a full tax benefit from the losses which occur when the risk turns out badly (while they pay full tax on the profits from successful risks). The bias particularly discourages risk-taking by currently nontaxable firms. Safe-harbor leasing alleviates this bias against risk-taking by enabling firms to obtain a tax benefit from loss carryover deductions, and in that respect it promotes equality of investment incentives. However,

[1] In its 1981 annual report, the Standard Oil Company of Indiana revealed that it had been the buyer/lessor in safe-harbor leasing arrangements in which it paid over $400 million to purchase tax benefits. It also noted that it was refraining from drilling a number of promising oil and gas properties because of a "tax-induced shortage of capital." (Of course, when the company uses its purchased tax benefits, it will have more capital to invest in subsequent years.)

to eliminate the bias against risk-taking, much more far-reaching changes in the tax law would be needed.

Furthermore, the analysis can be extended to more realistic cases of multi-year investments. In general, the result is that safe-harbor leasing improves neutrality of investment incentives when it is used for investments by firms who expect to be nontaxable for a temporary period, but leasing makes incentives less neutral when it is used by firms who expect to be nontaxable for a long period of time. No general statements can be made about whether leasing improves or worsens the neutrality of investment incentives across all firms. This conclusion holds true for a refundable investment credit as well.

VIII. REVENUE IMPACT OF SAFE-HARBOR LEASING

The staff has recently revised its estimate of the revenue impact of safe-harbor leasing, using a model developed by the staff of the Treasury Department. The new estimates are that enactment of safe-harbor leasing will reduce revenues by $3.2 billion in fiscal year 1982, $4.0 billion in 1983, $5.7 billion in 1984, $7.1 billion in 1985, $9.5 billion in 1986, and $12.1 billion in 1987.[1]

The revenue estimates on leasing should be regarded as somewhat more uncertain than most staff revenue estimates. The reason for this uncertainty is that, while it is possible to estimate the additional leasing that has occurred after passage of the ERTA, it is very difficult to determine how much of that additional leasing was a result of the new safe-harbor rules, how much was a result of the fact that ACRS created more unused deductions and tax credits, and how much was a result of the weak economy. The revenue loss from the safe-harbor rules is the estimated incremental impact of the first of these three factors, taking the other two as given. The information returns analyzed in sections IV and V are of only limited value in estimating this incremental impact.

The revenue estimating model was developed by the Treasury Department in consultation with the staff. Given the present law safe-harbor leasing and ACRS depreciation provisions, the principal economic assumptions affecting the level of leasing activity in the model are the projected levels of corporate tax liability and investment. These assumptions in turn affect both the level of net operating losses and investment credit carryovers, which determine how many businesses want to sell tax benefits as well as how many are willing to enter the market as lessors on the demand side. In the initial years, the NOL and ITC carryovers from pre-1981 investment play a significant role in the leasing of current investments.

[1] The original staff estimates were a revenue loss of $0.4 billion in 1981, $2.6 billion in 1982, $3.6 billion in 1983, $5.1 billion in 1984, $6.7 billion in 1985 and $8.5 billion in 1986.

IX. MISCELLANEOUS ISSUES

In addition to the perception problems that have resulted from using safe-harbor leasing as a mechanism for transferring tax benefits, safe-harbor leasing has raised several smaller questions that might not necessarily arise under a more direct method of assisting corporations who cannot fully utilize their tax benefits.

Bankruptcy-related Issues

In general, when property is sold in connection with the bankruptcy of the State law owner of the property, recapture of Federal tax benefits allowed to that person is often required. If 5-year recovery property has been in service for less than 5 years, there is recapture of the investment tax credit. Also, where property is sold in a bankruptcy proceeding, the bankrupt company must pay tax on any gain if it has positive taxable income.

Under the Treasury regulations for the safe-harbor leasing provisions, when the seller/lessee in a tax benefit transfer goes bankrupt, there will not be recapture of tax benefits previously allowed to the buyer/lessor if (1) the lessor gives timely notice to the trustee and any person that purchases the property in the bankruptcy proceeding and (2) the lessor obtains the consent of all original creditors with perfected security interests in the property. The effect of the provision is to give the buyer/lessor priority in bankruptcy over the Federal government and other creditors.

This bankruptcy provision is intended to remove the credit-worthiness of the seller/lessee as a factor in the sale of tax benefits, permitting distressed companies to use leasing to sell tax benefits on the same basis as more creditworthy firms. The price paid to achieve this objective is the loss to the Treasury of whatever recapture tax that ordinarily would be paid at the time of the sale in bankruptcy.

The objective of removing the creditworthiness of loss companies as a factor could be achieved through a refundability provision without paying this price. Under a refundability provision, tax benefits would be paid to any company investing in eligible assets without regard to the creditworthiness of that company. However, if the venture proved unproductive and the company filed bankruptcy, recapture would occur.

The bankruptcy rule under the safe-harbor regulations may not totally achieve the objective of removing the creditworthiness of the lessee as a factor in the sale of tax benefits. Under the bankruptcy rule, the person who purchases the property in a bankruptcy proceeding is treated for Federal tax purposes as having acquired a leasehold interest. Therefore, he is not eligible for ACRS deductions or the investment credit but must amortize his cost over the remaining term of the lease. Should the person who bought the property in the bankruptcy

proceeding subsequently transfer State-law title to someone else, the Treasury regulations require recapture of the investment credit and recognition of gain for the buyer/lessor, unless prior to the sale the buyer/lessor notifies the new owner that, for Federal tax purposes, the new owner is really acquiring a leasehold interest, and not the property itself. However, the purchaser who bought the property in the bankruptcy proceeding may not notify the buyer/lessor of his intent to resell, in which case there would be no way for the buyer/lessor to prevent recapture. This possibility of recapture may reduce the price a buyer/lessor is willing to pay for the tax benefits of a seller/lessee that is a poor credit risk. To that extent, safe-harbor leasing is less efficient than a refundability provision. In addition, there is a possibility that the buyer/lessor would not be aware of the sale and would fail to report recapture, resulting in two taxpayers' claiming tax benefits for the same property.

Benefits to Foreign Corporations and Governments

To qualify for safe-harbor leasing, property must be eligible for the investment credit. In general, property used abroad is not eligible for the credit and thus is not eligible for the safe-harbor provisions. However, certain transportation and communications property, such as aircraft registered with the Federal Aviation Administration and flown to and from the United States or communications satellites, is eligible for the investment credit under exceptions to the general rule.[1]

These exceptions permit safe-harbor leasing to be used when the user of the equipment is a foreign corporation or foreign government that pays no U.S. tax. A U.S. bank or other financing party can acquire property and lease it under prior law lease rules to a foreign corporation or foreign government. If the property is, for example, a plane that will be used to and from the United States or a communications satellite, the bank can enter into a safe-harbor sale-leaseback to sell the investment credit and ACRS deductions to which it is entitled. The sale-leaseback qualifies under the safe-harbor rules since the safe-harbor lessee (the bank) pays U.S. tax and the plane or satellite is eligible for the investment credit. In effect, the combination of the investment credit, prior law leasing rules and the safe-harbor rules permit what amounts to a U.S. Government subsidy for the foreign corporation or foreign government. In the case of the airplane lease, there is at least some connection with the U.S. economy, since the plane is eligible for the investment credit and safe-harbor leasing only if used for flights to and from the U.S.; however, there need be no such connection for leases of communications satellites.

[1] Property exempt from the rule denying the investment credit to property used abroad includes aircraft used to and from the United States, rolling stock used within and without the United States, U.S.-flag ships used in U.S. commerce, motor vehicles used to and from the United States, containers used to and from the United States, property used for producing or transporting resources from the Outer Continental Shelf, property used in a U.S. possession, communications satellites, telephone cables to or from the United States, oceanthermal property and property used to produce or transport resources from the ocean in the northern part of the Western Hemisphere.

Safe-harbor Leasing as a Means of Increasing Other Tax Benefits

Safe-harbor leasing was intended to encourage the purchase of equipment by allowing owners to sell the tax benefits associated with the purchase of that equipment. However, safe-harbor leasing also has been used by some companies to increase tax benefits that are not associated with the purchase of equipment. Those benefits include percentage depletion and any other benefits that are limited by the taxpayer's taxable income.[2] For example, by using the safe harbor to sell depreciation benefits attributable to investment in equipment, a company is able to increase its taxable income and thus increase its percentage depletion deduction.

Safe-harbor leasing might also be used to avoid the limitations on the investment credit imposed on savings and loan associations. Under the investment credit rules (sec. 46(e)), a savings and loan association's qualifying investments must be reduced by one-half the otherwise allowable amount, effectively reducing the 10-percent credit to 5 percent. In addition, the tax liability limitation on the investment credit of a savings and loan association is generally $12,500 plus 90 percent of the excess tax liability whereas the tax liability limitation on the credit of other taxpayers is $25,000 plus 90 percent of the excess. Some savings and loan associations appear to be taking the position that they can avoid these limitations by selling the tax benefits in a safe-harbor lease to a corporation that is not a savings and loan association. The Treasury regulations do not address this issue.

In addition to increasing benefits limited by taxable income, the safe harbor has been used to increase a company's ability to take full advantage of the lower tax rate on capital gains from, for example, timber operations. In general, depreciation deductions may be used against ordinary income that is taxed at a 46-percent rate. However, if the taxpayer has long-term capital gains in any year and his ordinary deductions exceed his ordinary income, he may not get any tax benefit from additional depreciation deductions if he claims them that year. The taxpayer is not allowed to forego the depreciation deductions for that year and claim them in a subsequent year against ordinary income taxed at a 46-percent rate (i.e., it cannot "bank" deductions). To avoid this reduction in benefit resulting from application of depreciation deductions against capital gains, companies have sold their depreciation deductions in a safe-harbor lease to those who can use them against income taxed at a 46-percent rate. Thus, safe-harbor leasing can be used to achieve the same objective that would result if banking of deductions were permitted. As shown in table 7, the forest products industry has been the largest single user of safe-harbor leasing.

In some of these cases, Treasury could amend its safe-harbor regulations to eliminate use of safe harbor leasing to increase tax benefits other than ACRS.

Interaction With State Tax Systems

An issue that arises where paper lease transactions are the mechanism for transferring Federal tax benefits is the interaction of leas-

[2] Percentage depletion on any property is limited to 50 percent of the taxable income from the property. Also, percentage depletion for oil and gas is limited to 65 percent of the taxpayer's overall taxable income.

ing with State tax systems. States appear to have responded differently to the safe-harbor leasing rules.

Many States conform their corporate income tax base to the Federal definitions of taxable income. For businesses operating in these States, the purchase of Federal tax benefits through safe-harbor leasing creates a bonus at the State level in the early years of the lease in the form of additional depreciation deductions. Some of this bonus is, however, offset in later years, when the lessor must include in income the excess of lease rentals over interest payments. The State-tax benefit from purchasing depreciation deductions through safe-harbor leasing is higher in conforming States with higher tax rates than in nonconforming States or conforming States with lower tax rates. This should encourage businesses in high-tax conforming States to outbid businesses in other States and purchase a disproportionate share of the tax benefits offered for sale in the leasing market. This should create pressure for fewer and fewer States with high tax rates to conform to the Federal definition of taxable income.

Safe-harbor leasing can have a variety of impacts on State taxes, depending on the way States draft their laws. For example, consider the situation in West Virginia. That State imposes a 1.15 percent tax on gross receipts of corporations, and for safe-harbor leases it applies the tax both to the lease rental payments to the lessor and lease-related interest payments to the lessee, even though both of these payments are purely paper transactions. (In the example in table 1, this double State tax on paper income flows would have a present value of approximately $16,000, or over 5 percent of the federal revenue loss.) However, West Virginia provides some offsetting State tax benefits in connection with safe-harbor leasing. For the property tax, assessed value is lower for property for which the tax benefits have been sold through safe-harbor leasing. Also, lessors can deduct purchased ACRS deductions in computing taxable income under State law, subject to State rules which make State law depreciation less generous than ACRS.

Need for Insurance and Indemnification and Unwind Clauses

As a result of an act by the seller/lessee, the buyer/lessor may lose its right to claim tax benefits under a safe-harbor lease or may be required to recapture the tax credits and report gain on the transaction. For example, if as the State law titleholder the seller/lessee were to sell the property and the purchaser fail to consent to take the property subject to the lease, the buyer/lessor would suffer investment credit recapture and recognition of gain. In addition to acts by the seller/lessee, a change in the law may retroactively deny or alter safe-harbor treatment or the value of the tax benefits transferred. To reduce these risks to the buyer/lessor, safe-harbor leases generally contain indemnification and unwind clauses. Under an indemnification clause, a seller/lessee may be required to make a payment to the buyer/lessor who is deprived of his full tax benefits as a result of an event enumerated in the agreement. Under an unwind clause, the parties may be required to return any payments received under the agreement or to take other actions which put the parties in the position they would have been in had the agreement never been made.

Unwind clauses have been used most often in anticipation of a change in the law that would retroactively deny or alter the value of benefits in a safe-harbor transaction.

In addition to indemnification and unwind clauses, the parties in safe-harbor leases may seek to obtain an insurance policy to cover any loss of benefits that may occur as a result of an unanticipated event. Thus, the buyer/lessor's tax deductions and credits may be insured against loss. Such insurance is being purchased through Lloyd's of London, as well as through American insurance companies, and involves premiums as high as 7 percent of the value of the equipment.

The drafting and interpretation of these type of provisions is complex and costly. The data in table 3 show that substantial fees to third parties were paid in connection with safe-harbor leases. The need for such provisions would be eliminated if the user were to receive its subsidy directly from the Government in the form of refundable tax benefits rather than indirectly through a third party in the form of a tax benefit transfer lease. However, many of these same issues arose under prior law leasing.

Leasing Between Members of Affiliated Groups

The leasing information returns indicate that approximately $304 million in equipment was leased between members of affiliated groups of corporations, even though the Treasury regulations have reserved on the question whether the safe-harbor rules apply when the buyer and seller are related. The most common case when transferring deductions and investment credits through safe-harbor leasing is advantageous is when the seller/lessee has no taxable income against which to use additional deductions or is up against the 90-percent limit on the amount of tax liability against which the investment credit may be claimed. These conditions generally do not exist between members of an affiliated group filing a consolidated return. However, if safe-harbor leasing is permitted between members of an affiliated group, it can be used to avoid rules in the consolidated return regulations and to ensure that any benefits accruing to the lessor in the safe-harbor lease stay within the affiliated group.

As mentioned previously, one reason why firms do safe-harbor leasing is to increase the benefit from percentage depletion and capital gains rates. For example, by selling ACRS deductions, a company raises its taxable income and thus increases its percentage depletion deduction, if that deduction is limited by one of the taxable income limitations. Under the consolidated return regulations for affiliated groups, percentage depletion is computed by each member on a separate basis. Thus, if a member of the group that had no percentage depletion could buy tax benefits in a safe-harbor lease from another member that had percentage depletion, it could thereby increase the depletion deduction. Although in terms of maximizing the percentage depletion deduction, the same result could be achieved if someone outside the group were to purchase the tax benefits, the seller might not obtain full value for the benefit in that case. Safe-harbor leasing between affiliated companies would ensure that the full value of the tax benefits remained within the group.

Also, as discussed above, savings and loan associations may be able to use safe-harbor leasing to avoid the limitations on the investment credit imposed under section 46(e). The consolidated return rules apply the section 46(e) limitation on costs eligible for the credit only with respect to property owned by the savings and loan association members of the group. Thus, a savings and loan association could avoid this limitation if it could sell its tax credits to an affiliated corporation that was not a savings and loan association in a safe-harbor sale-leaseback. (The savings and loan's portion of the $25,000 amount used in computing the tax liability limitation for the group is reduced under the consolidated return regulations, though, even if the savings and loan sells its tax benefit.)

The consolidated return regulations permit a member of an affiliated group to carry back its share of a consolidated net operating loss or unused credit against only that member's preaffiliation earnings. Thus, members with preaffiliation earnings could utilize tax benefits purchased in a safe-harbor lease from other members in order to circumvent the limitation in the regulations. To the extent the buyer is allowed to carry back the safe-harbor tax benefits against its preaffiliation earnings, it will be entitled to a refund of tax previously paid on those earnings.

The Treasury could amend its regulations under the safe harbor to preclude entirely safe-harbor leases between related parties. Treasury also could amend the consolidated return regulations to prevent use of the safe harbor by affiliated groups to increase tax benefits other than ACRS benefits.

Accounting for Safe-harbor Leases in Financial Statements

The Financial Accounting Standards Board has published an Exposure Draft (revised as of April 13, 1982) detailing the proposed accounting treatment for safe-harbor leases that take the form of wash sale-leasebacks. These accounting rules recognize that these transactions are not true leases, but rather are intended purely to transfer tax benefits. As a result, they require that the buyer/lessor treat this purchase of benefits as an investment and that the seller/lessee report as income the proceeds from the sale of tax benefits.

The specific accounting rules proposed by the FASB, however, have the effect of increasing the income that the seller/lessee reports to its shareholders above what it would have reported if it had owned the equipment itself. Thus, even a taxpayer in the 46-percent tax bracket might have some incentive to sell tax benefits as a way of artificially boosting earnings per share reported to shareholders. (Of course, there would be no revenue loss to the Treasury in this case.) Some corporate executives have their pay related to earnings. These people could benefit from any artificial enhancement of earnings per share.

In its exposure draft, the FASB provides an example of a 10-year lease of a $100,000 asset in which ACRS deductions and the investment credit are bought for $27,000. The seller/lessee immediately reports as income $14,580 ($27,000 minus a deferred tax provision of $12,420). Had the seller/lessee not entered into the safe-harbor lease, he would have reported income of $10,000 as a result of flowing through to

income the tax benefit from the investment credit. Thus, the safe-harbor lease boosts the seller/lessee's reported income by $4,580. Later on in the term of the lease, this will be offset by a corresponding reduction in the reported earnings of the buyer/lessor. Leasing, therefore, not only transfers tax benefits, it also appears to transfer earnings reported on financial statements between the buyer/lessor and seller/lessee. Some of this transfer in earnings per share will, however, be reversed in subsequent years as the buyer earns income on the cash flow from his purchased tax benefits.

X. DIRECTIONS FOR CHANGE IN SAFE-HARBOR LEASING

In recent months, there has been widespread discussion about possible changes in safe-harbor leasing. This section outlines some of the possible directions such changes might follow. How Congress might want to change leasing depends, of course, on what (if anything) it perceives to be the problem with leasing.

One concern is the widespread public perception that safe-harbor leasing is inequitable. Some argue that these perceptions arise from the fact that safe-harbor leasing violates the general principle of tax law that economic substance, not form, should determine how a transaction is characterized for tax purposes. This would mean that fundamental changes to the safe-harbor rules, such as a return to a profitability test, a prohibition on lessee-financing, a requirement that the lessor have a greater stake in the residual value of the property than the lessee, and a requirement that the lessor be the owner of the property under State law, would be needed to deal with the perception problem. Others argue that the public perception that leasing is inequitable results from the use of leasing by certain types of profitable companies in particular situations, such as Occidental Petroleum's use of leasing to sell excess domestic-source tax benefits while it received foreign-source profits or General Electric's use of safe-harbor leasing to purchase enough tax benefits to entitle it to a substantial tax refund. These particular cases could be eliminated by amending the safe-harbor rules in ways that do not affect their basic character and function.

A second criticism of safe-harbor leasing is that it appears to flow through to the lessee much less than 100 percent of the lost revenue. The analysis in section IV, for example, indicates that almost one-fourth of the revenue loss went to parties other than the users of the equipment. This criticism might be dealt with in several ways. Safe-harbor leasing could be replaced with some form of refundable investment tax credit. This could take the form of full refundability, in which the Treasury refunded the full amount of investment credits in excess of tax liability, or partial refundability, in which the Treasury refunded (say) $.50 for each $1.00 of unused credit for which the taxpayer elected to claim a refund. Within the context of safe-harbor leasing, greater efficiency might result if the lease terms were shorter, so that buyers of tax benefits faced less uncertainty, or if permissible types of safe-harbor leasing arrangements were restricted to a standard format.

A third criticism of safe-harbor leasing is that it gives companies which do not expect to be taxable for long periods of time incentives to purchase equipment which would be unprofitable on a pretax basis, that it in effect enables companies to make money off the tax system.

It would be extremely difficult to design a leasing system (or an alternative system for converting unused ACRS benefits into cash) that eliminated this incentive and also maintained leasing for the temporarily nontaxable companies, for which the availability of leasing helps equalize incentives to invest. However, greater equality of investment incentives would be achieved if the combination of cost recovery deductions and investment credits were made equivalent to expensing and if loss and credit carryovers arising from ACRS were allowed to increase in value at an after-tax rate of interest, so as to preserve their present value.

The fourth criticism of leasing is the revenue loss. This might be reduced by reducing the amount of tax benefits which can be transferred in safe-harbor leases, such as by reducing the length of lease terms, reducing the investment credit for property subject to safe-harbor leases or returning to some form of prior law rules. Alternatively, the rules could be changed to reduce the willingness of people to buy tax benefits (although this would make safe-harbor leasing even less efficient than it is today by reducing the price of tax benefits).

It appears, then, that no single solution to the safe-harbor leasing problem (including outright repeal of the provision) will be fully satisfactory in terms of its impact on perceptions, efficiency, equality of investment incentives and revenue.

XI. METHODOLOGICAL APPENDIX

This appendix describes the staff's methodology for computing the efficiency of safe-harbor leasing. The results of computations based on this methodology and data from information returns are discussed in sections IV and V.

Conceptually, the efficiency of safe-harbor leasing is the proportion of the revenue loss arising from a safe-harbor lease which flows through to the seller/lessee (the seller of tax benefits), rather than being retained by the buyer/lessor or by third parties, such as lawyers and investment bankers. By this measure, leasing would be a perfectly efficient subsidy if all of the federal revenue loss went to the intended beneficiary (the seller/lessee). The method used to determine the amount of that revenue loss and its proportional distribution among the seller/lessee, the buyer/lessor and third parties is set forth below. Procedures used in applying this method to the information returns are also described.

Revenue loss from a safe-harbor wash sale-leaseback

In order to determine the revenue loss from a safe-harbor wash sale-leaseback, assume first that the seller/lessee acquires property but does not enter into a safe-harbor lease. Let f^* be the present value to the seller/lessee of the ACRS deductions it receives. (For this purpose, the investment credit is analyzed as a deduction-equivalent. With a 46-percent tax rate, a 10-cent credit is equivalent to a deduction of 21.7 cents.) This present value will depend on when the seller/lessee actually will use these deductions (or credits), according to his present and future tax position. For example, at a 12-percent discount rate with ACRS 5-year cost recovery, f^* could be as large as $1.015 per $1 of investment—when the seller/lessee always uses his credits and deductions currently—or as small as zero if the seller/lessee never can use his credits or deductions during the net operating loss and investment credit carryover period. Let I^* equal the present value of the gross income arising from ownership of the asset, net of operating expenses, which will be included in the seller/lessee's taxable income, the present value for tax purposes again depending on when the seller/lessee is expected to become taxable. The present value of the seller/lessee's additional tax base would be I^*-f^* when the seller/lessee does not enter into a lease.

Now assume that the seller/lessee does enter into a safe-harbor wash sale-leaseback. In each period, the excess of lease rental payments over lease interest payments is simply the repayment of the loan principal by the lessor to the lessee. The undiscounted sum of these net rental payments is the principal amount of the loan. Let g^* be the present value of the excess of lease rental payments over lease interest payments (net rental payments) deducted from the seller/lessee's taxable income (which like I^* and f^* will depend on when the seller/lessee will become taxable). Now the present value of the seller/lessee's tax-

able income from the asset is I^*-g^*. Let f be the present value of the ACRS deductions associated with the asset and g be the present value of the excess of lease rentals over lease interest under the assumption that the taxpayer always uses his deductions currently. If the buyer/lessor is in this position, then the lease causes the present value of his taxable income to decline by $f-g$. Therefore, the present value of the aggregate tax base of both the seller/lessee and buyer/lessor which is attributable to the existence of the property would be $(I^*-g^*)+(g-f)$ when tax benefits are sold through a safe-harbor lease.

Thus, the decline which occurs in the present value of the aggregate tax base when the seller/lessee sells tax benefits rather than retains them is $(I^*-f^*)-(I^*-g^*)-(g-f)=(f-g)+(g^*-f^*)$, and the present value of the revenue loss from the lease is 46 percent of that amount. The reason for differentiating between ACRS benefits in the hands of the seller/lessee (f^*) and the buyer/lessor (f) is that their usefulness in reducing tax liability usually differs, even though the face amount of the benefits is the same. As explained earlier in this appendix, the same $1 deduction that might have generated no actual tax savings for the seller/lessee could generate tax savings for the buyer/lessor. Likewise, the impact on tax liability of net rental payments may be different in the hands of the seller/lessee (g^*) than of the buyer/lessor (g), even though the face amount is the same.

Distribution of benefits (revenue loss) from a safe-harbor transaction

By entering into a safe-harbor wash sale-leaseback, the seller/lessee gains nontaxable cash from the buyer/lessor (an amount C). However, if it has a positive marginal tax rate at any time during the 15-year carryover period for net operating losses and investment credits, the seller/lessee will also pay more tax as a result of the lease since the present value of the ACRS deductions it sold (f^*) is greater than the net rental deductions it acquired (g^*). Assuming that fees to third parties (an amount T) are split evenly,[1] the present value of the benefit to the seller/lessee is $C-.46\ (f^*-g^*)-.5T$. The present value of the benefit to the buyer/lessor is its reduced tax liability on the amount $f-g$ less cash paid to the seller/lessee and transactions costs, or $.46\ (f-g)-C-.5T$. Thus, the sum of benefits to all parties, including the amount paid to third parties, equals the present value of the revenue loss, or .46 times $(f-g)+(g^*-f^*)$.

The staff believes that a useful measure of how efficiently the leasing provisions assist investment by corporations that do not currently have tax liability is the percentage of the revenue loss which benefits seller/lessees. This can be called the efficiency percentage. It is determined by the following formula

$$\text{Efficiency percentage}=\frac{C-.46(f^*-g^*)-.5T}{.46(f-g+g^*-f^*)}(100\text{ percent})$$

Thus, if there were no third party fees ($T=0$) and if the buyer/lessor's cash payment were to equal the present value of the tax savings it pur-

[1] In fact, the payment of fees has minor effects on taxable income which are not accounted for at this point, but which are explained below and incorporated in the estimates in section IV.

chased ($C=.46(f-g)$), then all of the benefit would go to the seller/lessee and the transaction would be 100-percent efficient.

The corresponding measure of inefficiency of safe-harbor leasing is the percentage of the revenue loss which benefits persons other than seller/lessees:

$$\text{Inefficiency percentage} = \frac{.46(f-g)-C+.5T}{.46(f-g+g^*-f^*)} \text{ (100 percent)}$$

In estimating these percentages from data on the information returns, the staff assumed that the seller/lessee would have insufficient taxable income or tax liability to use either the ACRS deductions and investment credits it sold ($f^*=0$) or the net rental deductions it acquired ($g^*=0$). This simplifies the formula for the efficiency percentage as follows:

$$\text{Efficiency percentage} = \frac{C-.5T}{.46(f-g)} \text{ (100 percent)}$$

Under the staff's methodology, this assumption gives the highest estimates of the seller/lessees' benefit and the efficiency percentage. To the extent this assumption is incorrect, the figures shown in table 3 of section IV above overestimate the true benefit to seller/lessees and the efficiency percentage.

In its "Preliminary Report on Safe-Harbor Leasing Activity in 1981" (March 26, 1982), the Treasury used a different formula for computing an efficiency percentage. The Treasury formula is

$$\text{Efficiency percentage} = \frac{C+.46g-.5T}{.46f} \text{ (100 percent)}$$

Arithmetically, this formula yields a higher efficiency percentage than the formula used by the staff, when all other assumptions and procedures are the same.

The Treasury's procedure is to compute on a present value basis the amount ($.46(f-g)-C$) by which the buyer/lessor's cash payment falls short of the tax savings it purchases with respect to an asset in a safe-harbor lease. Then this amount is divided by the tax benefits ($.46f$) that a fully taxable investor enjoys when it acquires and does not lease the asset. The result is an inefficiency percentage which, when subtracted from 100 percent, yields the Treasury's efficiency formula shown above. According to Treasury, this efficiency formula indicates how well the market for tax benefit transfers is working in potentially providing the seller/lessee with the maximum benefit a lease can transfer. Unlike the staff's measure of efficiency, the Treasury's formula is not directly related to the revenue loss arising from a safe-harbor lease or to the ability or inability of the seller/lessee to use the ACRS benefits it sells or the net rental deductions it acquires.

Data processing

Computations were based on information returns that were provided by the Treasury. An information return was rejected as inapplicable

to this analysis if it did not appear to be a wash sale-leaseback, if inconsistent information was found on the return, or if the seller/lessee and the buyer/lessor appeared to be related.

Technical notes

Present value computations depend on when payments are made or received. In order to fix the timing of payments, the convention was adopted that the buyer/lessor is a calendar year taxpayer who executed a safe-harbor agreement on November 15, 1981.

Additional assumptions include the following. Payments to third-party agents and the buyer/lessor's cash payments to the seller/lessee occur on the execution date and are not discounted. The buyer/lessor claims the investment tax credit, the first ACRS depreciation deduction and a deduction for 1.5 months of amortized fees of third parties in 1981. These tax savings are reflected in the corporate estimated tax payment due December 15 and are discounted for one month. Any depreciation deduction, rental and debt service payment under the lease, or deduction for amortized fees for a calendar year after 1981 is reflected in the June 15 corporate estimated tax payment for the year. These amounts are discounted by 7 months if for 1982, 19 months if for 1983, and so on. A 12-percent after-tax discount rate is used in all calculations of present value, except where otherwise noted.